

XV.—SOME RACES OF THE RED-BILLED CHOUGH  
 [*PYRRHOCORAX PYRRHOCORAX* (LINN.)].

The Red-billed Choughs are distributed over a considerable portion of Europe, Africa and Asia. Curiously enough, they are grouped under the binomial *Pyrrhonorax pyrrhonorax* (Linn.), from which we assume that ornithologists are generally of opinion not to recognize any but the typical form. The approximation of body-colour of birds of the different areas naturally lends to the suspicion that there has been hardly any influence of environment at work on these Choughs, which apparently do not react to the conditions of the climate, soil and food. John Gould, however, in his examination of the Himalayan Chough detected differences in point of size, which left him in no 'hesitation to describe it as distinct' (*P. Z. S.*, 1862, p. 125) from European examples. In the dust of criticisms and controversy which subsequently raged over this point, drawing in their vortex such distinguished scientists as August Von Pelzeln, W. T. Blanford, Allen O. Hume, Ferdinand Stoliczka, etc., the true significance of Gould's observation was lost, the concensus of opinion among ornithologists deeming it absurd to found a specific distinction on the dimensions of the Chough. Recent studies, however, of the birds bring home the fact that while it is difficult, nay impossible, to ignore the above decision, it is nevertheless easy to differentiate them as geographical races or subspecies, separated from one another by immense barriers of land. The continental *Pyrrhonorax* of the Alps, if not the form found on the British Isles, is reckoned as the type, though the former is appreciably a bigger bird in respect of size. Witherby records (*A Practical Handbook of British Birds*, p. 32), measurements of British birds—♂ wing 270–310 mm.; tarsus 55–59 mm.; bill from nostril 49–58. ♀ wing 265–285 mm.; bill from nostril 42–47. Dr. Stresemann mentions (*Journal für Ornithologie*, lxxvi, 1928, p. 343), the Choughs collected by Von Gerd Heinrich in Elburs Expedition of 1927 as a distinct race (*Pyrrhonorax pyrrhonorax pontifex* subsp. nova. Typus in Zoolog. Museum, Berlin, Nr. 27. 819; Gilan: Pish Kuh 2500–3000 m. 2 Mai 1927) which, though agreeing in colouration with the European examples is decidedly larger in dimensions. Measurements recorded thereof are for 3 ♂♂ and 2 ♀♀. ♂ 318, 320, 327 mm.; ♀ 293, 305 mm. So far the difference that has been noted in respect of the birds from different areas is only one of degree, the body-colour in the European and Elburs examples being glossy black with distinct green iridescence on the wings and tail. The measurements of the Himalayan Chough recorded by Gould (*P. Z. S.*, 1862, p. 125) is—wing 324·5 mm.; tarsus 57 mm.; bill 57 mm. This is fairly corroborated by Blanford (*J. A. S. B.*, vol. xli, p. 70) who records—♂ from Sikkim, wing 324·5 mm.; tarsus 61·5 mm.; bill from gape 58 mm.; ♀ wing 292·5 to 312·5 mm. Stuart Baker's measurement noted in *The Fauna of British India, Birds* (2nd Edition), p. 68 is, however, clearly less and appears to tally with that of the continental if not the English birds. In Himalayan birds, Dr. Stresemann points out, the green iridescence of the wing and tail-feathers is not found and is replaced by a clearly blue gloss with a slight shade of violet

(*Journal für Ornithologie* lxxvi, 1928, p. 344). Recently, while revising the bird-collection of the Indian Museum, I have had opportunities of examining a large series of the Himalayan *Pyrrhocorax*. I notice extraordinary variations in respect of the culmen (50–103 mm.) and tarsus (50–65 mm.) both in male and female, the maximum measurement of the wing being 326 mm. The following are measurements of some specimens :—

Reg. No.	Sex	Locality	Wing	Culmen	Bill from Nostril	Tarsus	Middle toe without claw
19334	♂	Leh, Ladak.	326	56	51	53	25
19333	♂	Leh, Ladak.	322	56	49	55	25.5
16381	♂	Gilgit ...	316	50	44.5	56	24
6051		Ladak ...	316	55	48	50	25
24954	♀	Tibet ...	310	52	49	58	25
1173	♀	Si kim ...	308	53	47	65	27
1174	♀	Sikkim ...	302	51	46	60	26
24647	♀	Bhutan ...	301	73.5	66	65	30
24198	♀		300	103	96	63	30
8286	♀	Bhutan ...	291	80	73	60	27

A living specimen (probably ♀) from the Himalayas, belonging to the Calcutta Zoo, measures as follows :— wing 300 mm.; culmen 98; bill from nostril 92; tarsus 66; middle toe without claw 30 mm.

It appears from reference to above that the measurements recorded for the Himalayan Red-billed Choughs by Gould and Blanford are, by no means, the maximum, and are very often exceeded. This is fairly corroborated by Col. R. Meinertzhagen in his systematic results of birds collected at high altitudes of Ladak and Sikkim (*Ibis*, July 1927, p. 372). The following are measurements noted by him :—

Sex	Locality	Wing	Culmen	Tarsus
♂	Leh ...	340	60	56
♂	Sikkim ...	330	57	61
♂	Sikkim ...	332	60	59
♀	Sikkim ...	309	55	56

It is worthy of note that while Meinertzhagen's birds have extraordinary wing-length exceeding the maximum I have observed in

the collection of the Indian Museum, the measurements of culmen and tarsus noted by me are remarkably larger than the maximum noticed by any other ornithologist. The female birds are invariably smaller in point of wing-length, though their culmen and tarsus are often disproportionately larger. The larger dimensions of these birds and the blue gloss on their primaries will, therefore, mark them out from their European cousins. The wing-length of the latter seldom exceeds 310 mm., a character which is fairly constant at least for the individuals of the British Isles. Dr. Hartert appears to consider it impossible to distinguish with any degree of satisfaction the forms in Palæarctic fauna District of W. Europe to E. Siberia. Witherby records that the European birds have greyish brown feather-bases. In my examination of the Himalayan Choughs I find that these are brownish black, lighter in tone and rather inclined to be purplish. The subspecies from Elburs mountain recognized by Dr. Stresemann as *Pyrrhocorax p. pontifex* has very much larger wing-length and is almost indistinguishable in point of size from the Himalayan examples, but the green iridescence of their plumage appears to give them a character of their own. The individuals from North China, described by Swinhoe as 'variety brachypus' (*P. Z. S.*, 1871, p. 383), are recognized by La Touche (*Handbook of Birds of Eastern China*, p. 22), as a well-established race, which resembles the Indian form in colour but is definitely smaller in size: measuring, wing 256-298 mm.; culmen 43-48; tarsus 43-49; middle toe without claw 22-30 mm.; While recognizing the small size of the Choughs of the Tian-shan, Dr. Stresemann records (*Journal für Ornithologie*, 1928, p. 344) that they are lighter in colour and inclined more to blue shades, standing halfway between the Elburs and Himalayan forms. Here for the first time an intergradation is apparent. They have, says Dr. Stresemann, decidedly sharper wings than the Himalayan birds. This variation in the shape of the primaries does not appear to have been noticed by any other ornithologist. It is a character far reaching in its importance, and we must await fuller details about the birds, which Dr. Stresemann is inclined to recognize as *Pyrrhocorax p. centralis* sub-sp. nova. There are in the collection of the Indian Museum a few skins of the Choughs of Turkestan whose measurements are noted below:—

Reg. No.	Sex	Locality	Wing	Culmen	Bill from Nostril	Tarsus	Middle toe without claw
14194	♂	Turkestan	310	52	45	55	27
13269	♂	„	303	54	46	52	25
13283		„	293	48	42.5	48	24
14195	♀	„	277	46	40	53	28

These are appreciably larger than Stevens' records of Turkestan specimens published in *J.B.N.H.S.*, vol. xxix, p. 527. Here the maximum measurement hardly corresponds to the minimum of the

Himalayan subspecies. The extraordinary dimensions of the latter, which is more or less isolated in its distribution area, are not found anywhere else.

The following key may be adopted for identification of the different forms :—

*Key to subspecies*

- A. Gloss on wings *green*
  - a. Wing under 310 mm. ... British and W. Palæarctic form (*P. p. pyrrhocrax*)
  - b. Wing over 310 mm. ... Elburs (*P. p. pontifex*)
- B. Gloss on wings *blue*
  - a. Wing under 310 mm.;  
culmen and tarsus  
smaller under 50 mm. ... N. China from (*P. p. brachypus*)
  - b. Wing over 310 mm.;  
culmen and tarsus  
larger over 50 mm. ... Himalayan (*P. p. himalayanus*)

*Habits and Field Characters*

While in Britain, *Pyrrhocrax p. pyrrhocrax* (L.) is found in rocks and cliffs on or close to the sea-coast, nesting usually in crevices in roofs of sea-caves and hollows of rock-walls, the continental race generally affects higher mountains inland, and sometimes, though very seldom, nests in old castle, tower or human habitation. Flight buoyant, graceful. Call clear, shrill—'Kria, or dla dla' (Hartert); 'a soft K'chufe, and a rather querulous tchare' (Witherby for Br. Birds). Food varied as with *Corvidæ* generally. Nest.—Bulky. Eggs.—4 to 5 or more,  $39.4 \times 27.9$  mm. (Witherby's average of 100 eggs); larger with continental forms (maximum  $43.2 \times 28$  mm. recorded by Hartert); creamy white, occasionally pale green, with faint purplish grey and light and dark brown blotches.

*Pyrrhocrax p. pontifex* (Stresemann) nests in inaccessible mountain-tops. Young observed and heard cawing by Heinrich in the end of May. Congregations of young and old observed by him on 28th July.

*Pyrrhocrax p. brachypus* (Swinhoe) is a common resident in the mountains of Chihli, apparently extending its range towards E. Siberia; great flocks gather in higher hills in late summer. Eggs.—white, speckled and spotted irregularly with reddish brown over violet grey spots, the latter on the surface as well as within the shell; a zone round the large end; shape ovate;  $40 \times 27.5$ ,  $38 \times 28$  mm. (La Touche).

*Pyrrhocrax p. himalayanus* (Gould) occurs throughout the Alpine regions of Ladak, Kashmir, and Sikkim, in winter as low as 5,500 and as high as 16,000 ft. in summer to and even beyond 18,000 ft. (*Ibis*, 1927, p. 372). Wollaston records them on Everest (20,000 ft.) in September (*Ibis*, 1922, p. 526). In the Sikkim Himalayas it appears to be confined to the far interior, where there has evidently been no decrease in their numbers since Hooker recorded them in

1849 around *Lachen* (*J.B.N.H.S.*, vol. xxix, p. 517); rather scarce, according to Blanford, on the Cho La Range; found in winter in the valleys and plains where they apparently migrate at the season. Equally at home on deep snow, grassy meadow, cultivated ground, or on barren plains. Numerous in Ladak from 10,000 ft. and upwards as much near villages as far away among rocky crags; mixing commonly with crows, ravens, pigeons on ploughed fields or irrigated land. While in search of food which is mostly secured on the ground, they set to work, in pairs or parties, probing their bills deep down into the earth. 'Seen about places where yaks have been herded, hunting for insects under the dung, but they also feed on berries and seeds' (Blanford). Call raucous, somewhat plaintive; 'wilder', easily arresting sportsman's attention (Adams). Flight wild, excited. Noisy, sociable and gregarious; feeding, flying and sometimes breeding in colonies or congregations. Trial of strength not unfrequent, usually between two male birds, when whichever gets the worse of the encounter has the ill luck of being molested with extra pecks of a Jungle-crow. Flocks circle at immense height, then with closed wings down come the birds, one after another in swift slanting swoop. Not wary; observed in higher altitudes to come and roost under the eaves of the houses. Nest-construction begins in March; eggs not unusual in April, and young noticed in the first week of May. The nest is built of twigs, with wool lining, and placed in clefts of rocks; but in Tibet frequently in Tibetan houses, sometimes in holes in the walls only a few feet from the ground, usually the same site being occupied year after year. Osmaston records nests built in small holes excavated in sandstone cliffs by the birds themselves, about 2 to 4 ft. deep; consisting entirely of a thick pad of hair with no substratum of sticks. Eggs usually 3 or 4 in number constituting a clutch, are 'like those of the English birds, but much duller and brownish in tint and they average much bigger,  $41.7 \times 28.4$  mm. against  $40.7 \times 27.9$  mm.' (Stuart Baker). The maxima, recorded by Mr. Frank Ludlow, of 17 eggs (*Ibis* 1928, p. 54) are  $48.5 \times 27.5$  and  $47.5 \times 29.25$  mm.

50, KAILAS BOSE STREET,

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XVI.—NOTES ON THE FAUNA OF BRITISH INDIA :  
BIRDS, CHIEFLY WITH REFERENCE TO THE  
CENTRAL PROVINCES.

411. **Southern Red-whiskered Bulbul.** *Otocompsa emeria fuscicaudata*: In the Central Provinces this bird is more addicted to forests than the vicinity of gardens and cultivation. I have only met with it in the former.

433. **The White-browed Bulbul.** *Pycnonotus luteolus*: Stated to be rare or absent throughout the Central Provinces. This is true to some extent but it is rather plentiful at Kamptee where it breeds freely